

Lessons Learned from International Dual Degree Master Programs in Engineering

Dr. Sigrid Berka, The University of Rhode Island

Sigrid Berka is the Executive Director of the International Engineering Program (IEP) at the University of Rhode Island and Professor of German.

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Introduction

Since 1995, the bi-lateral exchange agreements between our US-based institution and various partner institutions in Europe have been developed as undergraduate exchanges as part of our institution's five-year dual Bachelor's International Engineering Program (IEP). IEP undergraduates study abroad for one semester before completing six-month internships in the target country. In exchange, in the early years only undergraduates from our partner institutions could spend up to a year at the University of Rhode Island.

But based on student demand from the first German partner school, non-degree undergraduate mobility was expanded to a dual master/MBA program in 1998. As a result, while most US students still spend one semester of study abroad, international exchange students can now complete a non-degree exchange or two engineering master's degrees. Industrial engineers can also pursue a master's from the German institution and an MBA from University of Rhode Island. Thus, the new program model exchanges undergraduates from the US for graduate students from Germany. They spend their 1st year of the MS at their home institution, followed by a year and a summer at University of Rhode Island or the other way around paying tuition to their respective home institutions.

Since the German model became a highly attractive one for both institutions, similar dual master programs were later developed with institutions in Spain, Italy and France. An earlier B.S./M.S. agreement – now discontinued – had also been created with a Chinese institution. A total of 341 students have graduated from these programs, and eleven are in process this year. Dual master programs have been developed with the following partner universities abroad in chronological order: Technical University of Braunschweig (TUBS), Technical University of Darmstadt (TUDa) in Germany, the University of Cantabria (UNICAN) in Spain, and University of Naples, Parthenope in Italy (UP), and the University of Technology of Compiègne (UTC) in France.

While TUBS has sent engineering or management engineers from all disciplines, TUDa has mainly sent Civil, Electrical and mechanical engineers; the UNICAN Memorandum of Understanding is for Ocean Engineering only with Civil engineering next in the pipeline; UP in Naples is designed for those specializing in Mechanical, Industrial and Systems Engineering, with Civil engineering coming next. With UTC we have an institution-wide agreement.

In the Fall of 2024, we administered a Qualtrics survey on the “Benefit and Career Impact of the University of Rhode Island International Dual Master/MBA Programs” [IRB # 2416456-1]. This paper will start with a literature review followed by a detailed analysis of the results of the University of Rhode Island survey and addresses the following research questions:

RQ 1: Do the University of Rhode Island international dual master programs add value for participating students?

RQ 2: What are the program's benefits and challenges?

Literature Review

According to a Lincoln Commission Report matters of domestic prosperity, economic growth and national security are directly dependent upon global citizenry as one in six American jobs is tied with international trade [1]. Yet the current administration's America First policy directly counteracts long-held insights about the value of international exchanges. A New York Times article [2] analyzes data sourced from the website of the US International Trade organization which shows the impact of the recent government delays in visa processing, travel bans and restrictions for nineteen countries, the threat to deport international students and the heightened vetting of student visa applicants. It reports a 19% decline in international student arrivals in the US, especially for graduate STEM programs this Fall 2025 from last year with the most dramatic impact on students from Africa (-33%), Asia (-29%), Middle East (-17%), South America (-11%) while arrivals from Europe stayed nearly the same (-2%). While there was an uptick from the UK (+7%), the countries we are concerned with in this article, Germany and Spain, recorded a 5% and a 4% drop respectively. This background is important since, on the one hand, the US-Germany exchanges have seen a "sterling record of success in benefiting and enriching both countries. [...] About 8,000 German university or graduate students study in the US each year with 6,412 American students studying in Germany as of 2024" according to the Heinrich Böll Foundation [3]. On the other hand, while the structure of our bilateral exchanges with Germany and other European countries has guaranteed transatlantic educational stability for over three decades, the 2026-2027 academic year has also seen a small decline in international applicants.

Academic, economic and political benefits of international joint degree programs through which a single diploma or credential is issued by the host institution as defined by Michael & Balraj [4]; and dual degree programs, through which according to Kuder & Obst [5] students receive two separate credentials from each partnering school present a significant opportunity as they meet demands of global knowledge-based economies and attract top international talents while cultivating strong global partnerships between institutions. As per Chan [6], they foster academic excellence, increased cultural awareness and leadership in participating candidates, expand international faculty collaboration, and have the potential to broaden course offerings. On the institutional level, they contribute to internationalization and increased visibility of departments and universities if they are aligned well with the academic missions and goals of the home campus. Challenges concern cultural and language differences and thus academic challenges for participants as well as housing related shortfalls. Culver [7] analyzed that both educational models foster upward social mobility and promote global citizenship, personal growth and self-reliance; and Asgary & Robberts [8] point out that institutions can "share resources,

internationalize their academic staff, campus and research endeavors and even enhance their prestige. “

While the above listed publications concern international joint/dual degree programs in general, Berka [9] more specifically points out the added values, synergies and gains for engineering graduate students. She mentions that those gains go beyond a mere graduate mobility scheme since, in the case of the University of Rhode Island and its partner school in Germany, the TU Braunschweig (TUBS), the program was launched as part of a \$2.4 million NSF PIRE grant by an interdisciplinary team of engineering and science faculty on both sides of the Atlantic. Therefore, it not only afforded generous stipends for the pioneering group of dual master's students, some of which stayed on as PhDs and launched careers in Germany or the US but also generated joint scholarly collaborations and output which leveraged the partner institutions' complementary expertise in equipment, unique research facilities, innovative modeling software and more. The funding also guaranteed a steady flow of students from the US to Germany while the existing long-term bilateral exchange with TUBS guaranteed stability from the German side.

Findings by Martinez, Epstein, Parsad [10] suggest that the NSF PIRE program has fostered the global engagement of U.S. scientists and engineers with no loss of research productivity or quality relative to the comparison group. Furthermore, the international scope of the NSF PIRE grant increased postdoctoral researchers' and graduate students' research productivity and the citation impact of postdocs' publications. The numerous joint scholarly publications between mentoring faculty and graduate student mentees of the University of Rhode Island NSF PIRE sponsored graduate dual master's program confirm the above study's findings.

While benefits of dual degree programs have been researched in general, we noted a scarcity of analyses on graduate dual degree programs related to engineering. The general research focus area has been in a wide range of international education initiatives, where undergraduate programs have dominated. What is lacking is a data driven, more detailed analysis of graduate dual master programs in engineering. This article sets out to begin to address this research gap.

Methods

The study employed a mixed-methods research design. In Fall 2024, the International Engineering Program (IEP) at URI conducted a Qualtrics survey assessing its international dual master/MBA programs in engineering/business. It included 44 Likert-scale and open-ended questions designed to capture alumni perspectives on the impact their degree programs had had on their career and lives. (See complete survey in Appendix 1). It was sent by email or through LinkedIn to approximately 150 graduates who completed the program within the time span of 1995-2025 and whose contact addresses were available to us, and 52 responded.

Survey Structure:

Intro & Personal Info (8 Questions)

Dual Master's/MBA Program Information & Experiences (19 Questions)

Following Completion of the Dual Master's/MBA Program (10 Questions)

Additional Feedback & Opportunities (8 Questions)

The survey responses were processed in two stages. In the initial coding round, the author coded recurring themes and lessons. In the second round, quantitative responses were examined with descriptive statistics; qualitative responses were subjected to thematic analysis to identify the themes most relevant to answer RQ1 and RQ2. To aid efficiency and consistency, ChatGPT was employed to generate preliminary summaries of the qualitative data. The author then reviewed and refined these summaries, sorted them by research question, added context, quotes and nuance and verified accuracy.

Participants

Data was collected from 52 participants of several of the University of Rhode Island international exchange partnerships, 36 male, 7 female, the rest did not leave their gender. In terms of ethnicity the majority was White Caucasian (44) with one Asian participant, four who indicated “none of the above” and three who preferred not to disclose their ethnicity. They had either completed a dual B.S./M.S./PhD (1 ZJU/URI); or an MS/MBA (3 TUDA/URI; 47 TUBS/URI of which two stayed at URI for a PhD), or a dual PhD (1 URI/TUBS). While the majority (49) had spent their first master year abroad and finished their second year at URI, three had gone in the opposite direction, from URI to TUBS.

Bilateral exchanges had been developed with the Technische Universität Braunschweig (Germany) since 1998; the Technische Universität Darmstadt (Germany) since 2015; Università degli Studi di Napoli Parthenope (Italy) since 2023; Universidad de Cantabria (Spain) since 2024. A previous 3+1 BS/MS program had existed with Zhejiang University (China) since 2010 but it was discontinued in 2020. This timeline explains the dominance of participants from our oldest partner school.

The breakdown of graduate alumni over three decades spanning from 1995 – 2025 includes: TU-Braunschweig > URI: 210 MS + 86 MBA; URI > TU-Braunschweig: 24 (+2 not completed); TU-Darmstadt > URI: 15; URI > TU-Darmstadt: 1 (currently in program); University of Parthenope > URI: 3; Universidad de Cantabria > URI: 1; Zhejiang University > URI: 1; Université de Technologie de Compiègne > URI - 1 starting in 2026-2027 and 2 PhD researchers of the Joint PhD program were exchanged between both institutions in 2025/2026.

In most cases, the undergraduate exchange from the US side enabled incoming graduate mobility from the European side as this chart which represents the exchange between the University of

Rhode Island and TU Darmstadt shows. Three respondents participated in the URI/TU Darmstadt exchange:

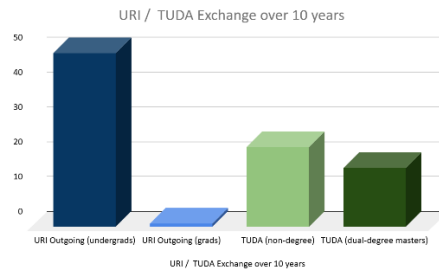


Figure 1: Mobility between URI and TU Darmstadt

Since our partnership with the TU Braunschweig is the oldest one, with all other programs being added in 2010 or later, it is not surprising that most survey responses hailed from graduates of TUBS (44). The chart below explains the mobility structure as well as key milestones that sustained this pioneering program over three decades.

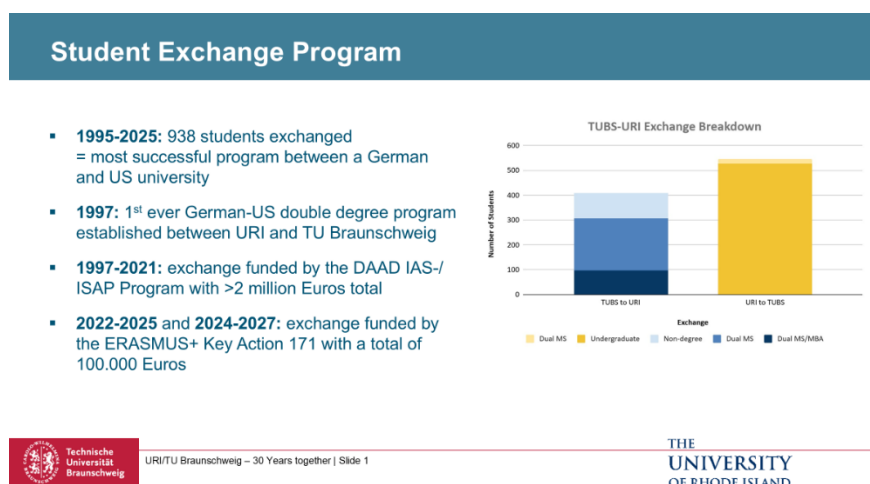


Figure 2: Mobility and Key Milestones in URI- TU Braunschweig Partnership

One response came from an alum of the 3+1 Zhejiang University/ URI BS/MS program, now discontinued.

Results

Quantitative Results

The distribution of participants' majors reflects joint program strengths and collaborations of institutions participating in the bilateral exchanges, e.g. Ocean engineering being exclusively available at URI but TU Braunschweig offered a geotechnical focus area within Civil Engineering:

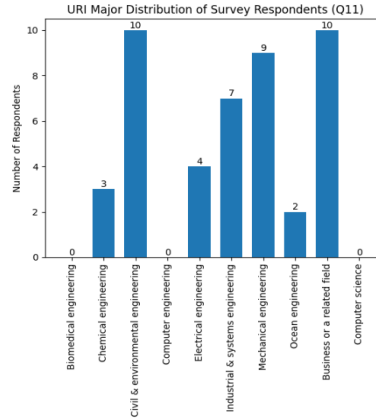


Figure 3: Engineering Fields of Survey Participants

It was encouraging and rewarding to see responses from some of the older graduates up to more recent ones spanning a timeframe from 2000 – 2023 as shown in table 5:

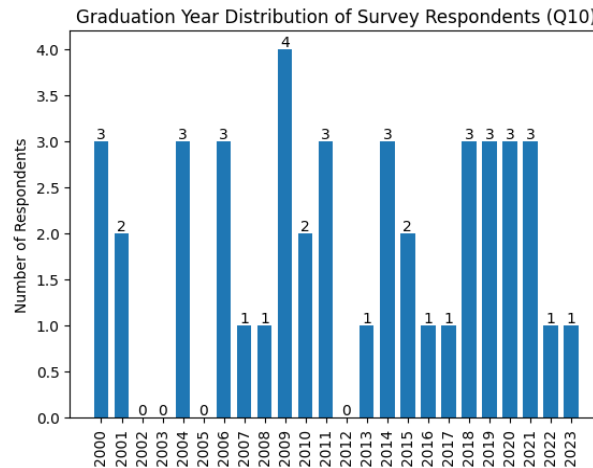


Figure 4: Graduation Year Distribution of Survey Respondents

Another important set of data to factor into the analysis was the financial structure of the dual master's/MBA program. The way it had been working since 1995 is through a bilateral exchange where students pay tuition to their home institution. At URI, undergraduates of the International Engineering Program who study abroad for a semester at the IEP's partner schools pay instate tuition to URI and thereby create a free exchange slot for graduate exchange students who pursue an MS or MBA. These candidates will only have to pay some overload credits (MBA program) or one research credit during the summer when they defend their thesis (Master's). The data below show the level of financial support students received on top of the “free” exchange slot.

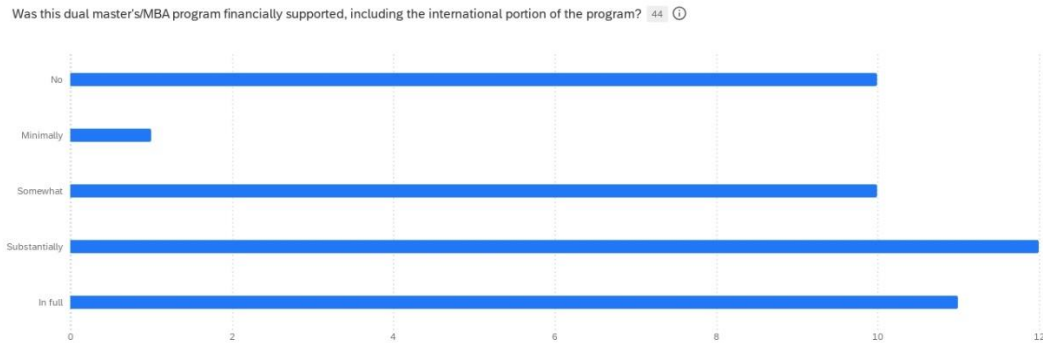


Figure 5: answers Q15 *Was this dual master's/MBA program financially supported including the international portion?*

In essence, when eleven participants chose “no” or “minimal” support this means that they do not take into consideration the significant savings they benefited from when studying at a much more costly US institution than their own in Europe or Asia. This financial structure is what makes such a program work in the first place since only a very limited number of students would join an international dual master’s program in the US if it was not on an exchange basis.

Those who were supported financially listed the German Academic Exchange Service (DAAD) as a major source of support (50%); some mentioned Fulbright (7%), one Max Kade Foundation (3%) and 40% chose “other” funding sources.

A topic that received mixed results in participants responses was that of transfer credit protocols. This is, of course, the backbone of any dual degree program and the “devil is in the details” in each students’ case. While a total of 44 respondents found the transfer process somewhat or very easy, eight just chose “ok” and four must have encountered major difficulties since they found it “very complicated”:

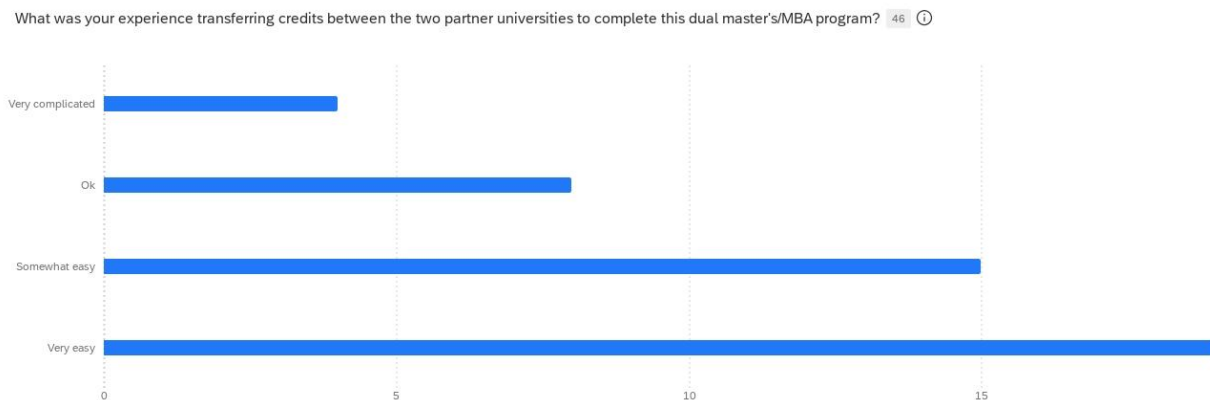


Figure 6, Satisfaction with Transferring Credits from Abroad, shows responses to Q19 “What was your experience transferring credits between the two partner universities to complete this dual master’s/MBA program?”

Another hugely important factor weighing in the overall rate of satisfaction with the program was the satisfaction with the candidates' advisors at both the home institution and at URI. Here, academic guidance and mentoring support by the URI thesis advisors scored significantly higher. This might be explained by the fact that the majority of the participants of this survey wrote only one thesis at URI so had only limited interaction with their home coordinator; another fact could be that URI has a much smaller College of Engineering than the technical partner schools abroad so candidates usually have a very close relationship and constant access to their advisor. A third reason could be that the URI advisors are happy to have any additional master theses candidate in their research group and especially ones who have undergone a rigorous selection process on their home campus to participate in the program.

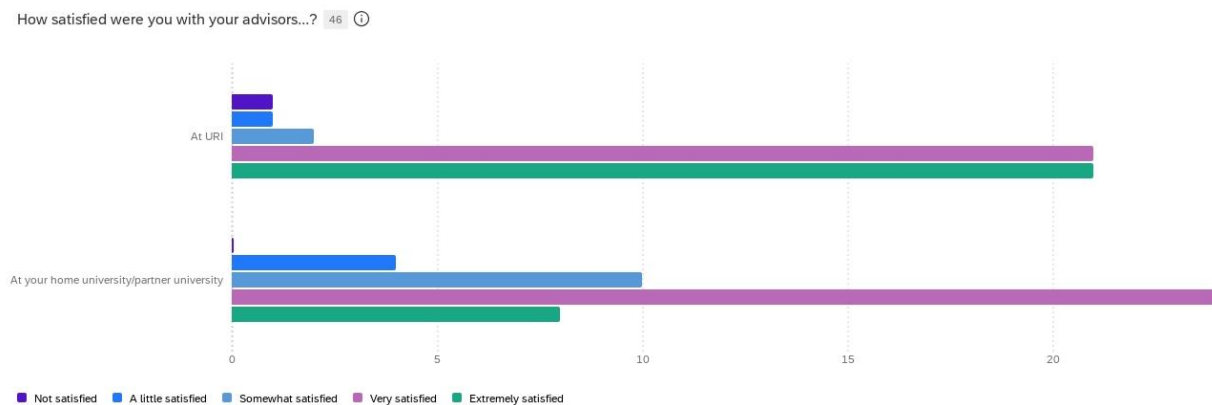


Figure 7 Satisfaction with Advisors

Overall, despite some hurdles with transfer credit evaluation and an occasional bad experience with a thesis advisor, the quantitative results of the survey show a high satisfaction rate with the URI international dual degree programs. Q24 asked the central question, whether the mission and goals of the program were met and it added value to a single degree option. About two thirds of respondents chose the option that the program added “significant” or “extreme value”:

Q24 One of the original goals in starting the dual master's/MBA degree program was to benefit from the complementary strengths of teaching/research at the various partner universities, e.g. classes or research fields not available at home. How much do you feel that this joint degree path added value to your education in this way?

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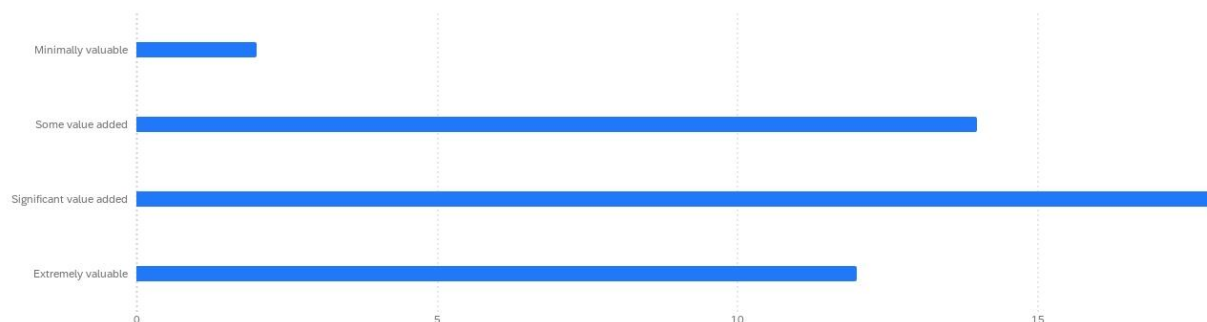


Figure 8: Level of Value Added by Dual Degree Program

Qualitative Results

The following survey questions provided answers related to **RQ 1**: Do the University of Rhode Island international dual master programs add value for participating students? They are sorted the most relevant survey questions and by common themes. To understand the perceived “added value” of a dual degree program, one must first understand participant’s motivation to join it. The responses to Q13: *What was your motivation to participate in this international dual master's/MBA program?* show a clear set of recurring motivations, which can be grouped into a few main themes:

- International experience and cultural exposure: Many participants were motivated by the opportunity to live, study, and work abroad. They emphasized cultural exchange, experiencing different academic systems, and gaining a broader global perspective.
- Dual degrees and academic advancement: A major draw was earning two degrees (e.g., MSc/MBA or equivalent) within a structured program. Several were drawn by being able to complete an MS from their home institution with an MBA from TUBS. Participants saw this as an efficient way to enhance their qualifications and distinguish themselves academically. Having an additional degree from a US institution was mentioned frequently as the main motivating factor, especially by the earlier graduates who still completed their *Diplom* as the later MS degree had been called before the Bologna reform in 1999. In the years afterwards, Germany also introduced a five-year BS/MS structure to be more aligned with the Anglo-Saxon education system. So the earlier graduates could combine a *Diplom* with an international MS degree.
- Language development: Improving English (and in some cases German) language skills was a frequent motivation, often tied to both personal growth and career advantages. One mentioned that it is a “Must” for graduates of German universities who enter the workforce to have had an international experience and be multilingual.

- Career and professional benefits: Respondents viewed the program as a way to strengthen their CVs, expand career opportunities, gain international credentials, and better prepare for the interconnected world by getting a broader education and more options entering the workforce. Some also highlighted specific technical or research interests they could pursue at the partner institution which were not available at their home campus.
- Personal growth and intercultural competence: Many highlighted developing intercultural skills, adaptability, and broader ways of thinking as key motivations such as “thinking/learning outside the box.” One mentioned the attractiveness of going back to the US where they had spent a year as an exchange student in high school.
- Research and academic opportunities: Some were motivated by access to research experiences, exposure to different institutional structures, and the chance to broaden or specialize their academic focus as in “broadening my research focus to a second major.”
- Program-specific advantages: A few noted practical or structural benefits such as scholarships (DAAD; DAAD ISAP, FULBRIGHT) and reliability of longtime established exchange partnerships as in “participating in a well-known, established program, unlike ERASMUS exchanges.” They emphasized transferability of credits and the ability to study abroad without delaying graduation.

In summary, the motivation to join and the added value perceived in the dual MS/MBA program overall was the combination of international experience with dual degrees, supported by language development, career advancement, and personal/intercultural growth.

After establishing the motivation for participants to join the international graduate dual degree programs, we next looked at the impact on their professional career and personal lives.

Q36 What was the most significant impact of the dual master's/MBA program on you as a whole (life, academics, career)?

Responses to this question indicate that the dual master's/MBA program had a strong, holistic impact on participants' personal development, intercultural competence, and life trajectories, with more mixed but still meaningful effects on career outcomes. Responses to this question demonstrated that completing a double international degree prepared by learning the language of the country one will stay in for a year or longer paid off in ways beyond the career advantages of degree completion. They can be sorted into the following key themes:

- Personal growth & self-confidence: The most dominant thread in participants' responses was an emphasis on a strong personal development, including increased self-confidence and self-awareness highlighting a significant jump in self-efficacy and awareness of one's own strengths. The following quotes are representative of this theme: “Significant improvement in self-esteem and cultural understanding “or “Understanding the different systems, understanding cultures, understanding what I am capable of.” The responses

also reflected a greater independence and resilience (especially navigating new environments or the pandemic) as well as a mindset of ambition and possibility “[....] that if I work hard and smart the sky is the only limit is for real.” The experience was often described as transformational or foundational to who they are today.

- Life experience / language improvement / openness to work abroad: Being in a different country during the Covid pandemic also seems to have helped to concentrate on the tasks at hand instead of being overwhelmed by the restrictions suffered due to the pandemic: “Learning how to manage to cope even if far away from friends and family during a worldwide pandemic. I became way more independent in multiple ways.” One participant mentioned that by going abroad for the dual master’s despite Covid led to “being motivated and engaged for university during the covid chaos in 2021.”
- Intercultural Competence & Global Mindset: A major impact mentioned by participants was gaining deep cultural understanding and appreciation of different perspectives, an ability to work across cultures and recognize multiple ways to solve problems and an increased openness, adaptability, and global awareness.
- Lifelong Relationships & Networks: One of the most frequently cited outcomes were continued relationships with peers, professors, and even host families and lifelong friendships, international networks, and professional connections. Graduates pointed out the benefits for their personal life - “I found friends for life” and building lifelong networks: “Big impact, great experience and network of people is substantial.” In some cases, life partners/spouses were met through the program. These social ties were often described as one of the most valuable outcomes.
- Career Direction & Opportunities: responses to this question were mixed but positive: While some reported limited immediate financial or career advancement, many highlighted access to international job opportunities (especially in Germany or North America), influence on career direction, including pursuing a PhD or working abroad, increased confidence and preparedness entering new roles. They also credited the program with broadening career horizons, even if not always reflected in salary gains. Several noted a shift in perceptions of other countries, especially the U.S., and stronger interest in international careers, e.g. “It sparked interest in working abroad, learning more about the US and learning more about different cultures and management.”
- Academic & Intellectual Development: Survey participants mentioned gaining specialized knowledge and skills not otherwise sustainable, exposure to different academic systems and research structures, motivation for further study (e.g., PhD pursuits), and improved language skills (especially English) and academic communication were also noted. A goal of setting up a dual master’s had been that students could take advantage of the different engineering cultures and learn different ways of approaching a problem. The following answer reflects that the participant’s initial expectation was fully met “Studying and living abroad taught me how people can

reach the same solution in different ways and the importance of understanding the local culture to work successfully with people from different backgrounds.”

- Adaptability & Handling Ambiguity: Many responses highlighted learning to adapt quickly to new and uncertain environments, to navigate ambiguity and complex situations and to operate effectively in international and interdisciplinary contexts. As Mu et al had found [11] in graduates of our undergraduate five-year dual bachelor’s program, it led to attitudes more favorable for working in diverse and global settings such as openness, curiosity, flexibility and critical self-awareness described as “Being able to quickly adapt to a changing environment” or by “Learning how to deal with ambiguity and how to use opportunities.”
- Lasting Life Impact: For several respondents, the program shaped major life decisions such as choosing to live abroad long-term, building families across cultures (e.g., bilingual children) or forming enduring personal values around cultural exchange and global engagement.

Overall, the program’s most significant impact lies in transformative personal and intercultural growth, supported by strong social networks and expanded global perspectives. While direct career gains were uneven, the program consistently broadened opportunities, confidence, and long-term life paths. For one participant from China who had completed the 3+x BS/MS dual degree it enabled a pathway to the US and then to a career in Canada allowing him “to start my career and family in North America.” Overall, the below quote summarizes how the program had life changing impact both on the graduates’ professional and personal side: “This program taught me how to handle new situations in a new surrounding more easily. I work in a very international field (offshore wind) and love how the different cultural backgrounds of people I work with form our work and personal relationships. I made friends for life; I learned how to sail which is now a big part of my life as well.

We next examined the student input addressing our **RQ 2**: *What are the program’s benefits and challenges?* It is summarized and substantiated below, either through related survey responses or previous literature.

Benefits and Challenges:

Q40 What do you see as the biggest benefit that the dual master's/MBA program offers students vs. a regular master's/master's equivalent program at your home university?

Asked to make this comparison, participants registered a heightened level of intensity which they perceived within their dual degree versus what they projected would have been their experience in a regular master’s program in their home country: “International exposure, academic and personal growth learning curve is much steeper.” They could also leverage “access to a wider band of courses as well as research opportunities” and, above all, take advantage of a different approach to engineering and business in the US educational system since it allowed

them to gain “more real-life insights /case studies over theoretical concepts.” The added benefit of having to learn a second language for the profession to make it in the English-speaking courses and research labs was mentioned as an additional difference: “Aside from a US degree, the constant immersion into language and culture, extending into professional environments and work/research.”

Responses to this question can be categorized in the following major themes:

- International experience & intercultural exposure was one of the most often mentioned benefits and included immersion in another culture, living abroad, broader perspectives. Responses reflected the significance of “cultural experience and getting to know how other countries function” and of developing significant intercultural competence played a significant role as well: “Besides the degree itself - leaving your bubble and gaining cultural and international research experience. Fosters empathy among cultures, language skills and confidence to take on (e.g. organizational) challenges in foreign countries.”
- Language improvement was often cited as a major Plus: participants highlighted regular English practice, better proficiency and confidence. Many mentioned the immersion aspect of their US experience: “The possibility to interact with American students daily to improve English, and to participate in projects of top researchers at URI.” This immersion led to major benefits: “Aside from a US degree, the constant immersion into language and culture, extending into professional environments and work/research.”
- Dual-degree credentials: The two recognized degrees from different countries were seen as a clear, marketable qualification as this respondent: “In my case it was *Diplom*/MSc and I was one of the last *Diplom* students. The MSc degree helped leveling the playing field for international work, increase my language skills and my willingness to get out of my comfort zone.” This response summarizes the dual degree’s pragmatic benefit “...as a solid qualification you can prove.”
- Personal growth & networking: Many respondents mentioned independence, confidence, meeting diverse/interesting people, expanded professional contacts: “To be away from home and become part of another culture” and the alignment of personal and professional goals: “Personal growth, second degree, new perspectives on teaching and research was a factor and the need to adapt both academically and personally to a complex new cultural and research environment: “International exposure, academic and personal growth learning curve is much steeper.” Lastly, geography played a role in the choice and overall satisfaction of completing the graduate degree at URI: “you get to meet very interesting people, work on your networking skills, Rhode Island is a beautiful state with the option to join lots of activities in nature and by the water.”
- Different academic approach & opportunities were listed by many: more independent research, hands-on/case-based learning or a “different approach to teaching”, broader course/research options. Participants highlighted their “freedom in research”; “being able to work independently. The US master’s degree focuses more on your own research than

the German one. It is sort of a mini-PhD". MBA candidates valued that they gained "more real-life insights /case studies over theoretical concepts" and also their "international experience with a clear shift in focus (also in terms of grading) towards soft skills in business studies." Going abroad from the US participants mentioned "access to a wider band of courses as well as research opportunities" at the partner school. One put it quite bluntly "Not being stuck in a German university but enjoying the freedoms of a US one."

- Career advantages were often cited: stronger leadership potential, better positioning for international work: "You will benefit from meeting different cultures and seeing how people think in other countries, which is a strategic advantage." Responses also reflected an awareness of the demand of the job market as in "companies these days are looking for potential leaders who are well versed with a second language, experience abroad and working with a diverse set of populations. Providing this experience is in my view the biggest benefit."
- Practical benefits were mentioned by a few: tuition sponsorship, different grading (GPA) dynamics as this response reflects: "Writing one master's thesis, getting easier As in the US than 1.0 in Germany, increasing German masters GPA", one-year structure and access to top researchers.

Overall, respondents valued the combination of a second, foreign degree plus language and immediate cultural immersion, their personal and professional development, and a different, more applied academic approach. From a program administration perspective, the dual master's degree from a German & an American institution has significant benefits as its financial model means an almost tuition free academic year abroad for the international graduate students attending the University of Rhode Island. They must pay some higher program costs in addition to their semester fee at the home institution so that the undergraduate exchange students can receive a free intensive summer immersion program; Graduates also mentioned excellent supervision and guidance by University of Rhode Island faculty in a small College of Engineering / MBA program and a less hierarchical relationship with their home school mentors.

A huge benefit mentioned by participants was that dual master's candidates could complete two different degrees at home and abroad institutions. The following available options demonstrate this point: if a candidate pursued an M.S. in Civil Eng & Management (*Wirtschaftsingenieur, Bau*) at the German institution (TUBS) they could choose between three options at the US institution: an M.S. in Civil & Environmental Engineering; an M.S. in Ocean Engineering; an M.S. in Industrial Engineering or an MBA in the College of Business. Participants leveraged the different way research is approached - "being able to work independently. The US master degree focuses more on your own research than the German one. It is sort of a mini PhD." This point is also true for the other direction and underscored by the motivation of a Mechanical & Engineering program alum from the five-year dual Bachelor's International Engineering Program degree program who had studied at the German institution TUDa during his

undergraduate exchange program and conducted research in the Institute of Flight Systems and Automatic Control. Inspired by that experience he decided to complete the dual master's with the same German partner leveraging the complementary expertise of the home and abroad institutions: he is currently pursuing, an M.S. in Mechanical Engineering from the U.S. institution and an M.S. in Aeronautical Engineering from TUDa, an option that does not exist at URI.

To determine the potential value of the dual master's/MBA programs over the course of the participants' careers, we next asked Q31 *What was your first place of employment following your completion of the dual master's program/MBA and what was your role?* and are summarizing answers to questions related to the graduates' first employment and then comparing them to their current employment. Answers ranged from what one would usually expect from a graduate of a master's in engineering program – e.g. calibration engineer, digital verification engineer, geotechnical design engineer, construction management, reliability engineer, trainee, research assistant, PhD student, junior project manager – yet they also confirmed assumptions the stewards of the dual master's or MS/MBA program had when they got it started, that it might propel some graduates into significant leadership positions right upon graduation which would be rare to see had they just finished one degree at home. Answers confirming this original motivation to start a graduate dual degree included: Consultant at McKinsey, Porsche, SAP or Deloitte, Consultant in Usability Development in Automotive industry, Automotive consultant, Boston Consulting Group Associate, NASA Flight Systems Engineer, Chief of Staff to CDO; Postdoctoral Researcher at the National Renewable Energy Laboratory, COO in a start-up, Concordia University, Assistant Professor.

Q33 *Where are you currently employed and what is your role? If exactly same as above, write "same".*

While seven graduates stayed in the same role they had occupied right after degree completion, other titles reflect a propensity for leadership positions at an times fast advancement trajectory: EON Strategy Dept., Project manager at management company, Managing director/President Sidekick Health, Senior Process Engineer, Sales manager for AI, Member of Executive board Nextrail GmbH, Head of Research group, Institute Machine Tools, TU Braunschweig, Chair of Sustainable Life Cycle Engineering, Chief revenue officer, Statista GmbH, Siemens Strategy Consultant., B&K CEO, Engineering consultant (HDR Inc), Zalando, Manager of internal audit. It seems that while not all graduates stand out in terms of their career trajectory, for many the dual master's/MBA provided an accelerated career pathway. The below table lists the responses to Q31 and Q33 in detail.

Table 1 Career trajectory of dual degree graduates

First employment after dual degree & role	Current employment and role
IAV GmbH as a calibration engineer (<i>Applikateur</i>)	Model based control engineer (<i>Funktionsentwickler</i>)
Deloitte	Zalando - Director of Internal Audit
McKinsey, Consultant	B+K, CEO

Porsche AG, Consultant	Audi AG, Manager in IT Department
Construction management in Southern Germany	Project management @ a chemical plant site operator (InfraServ Gendorf)
Consultant in Usability Development in Automotive industry	Product Marketing Manager for Connected Car Infotainment
Construction company in Germany (Züblin AG), geotechnical design engineer	Engineering consultant (HDR Inc), section manager for cost and constructability dams, levees and civil works
Germany, Reliability Engineer	Germany, Engineering Director
Digital Verification Engineer, Texas Instruments	Same
Graduate Research Assistant	Graduate Research Assistant
SAP Consultant	Siemens; Strategy consultant
Trainee	DB InfraGO, role: Manager
NASA, Flight Systems Engineer	NASA, Integration Manager of a lunar mission
TU Braunschweig, Research Assistant	Same
BERTELSMANN in Germany, Chief of Staff to CDO	Statista GmbH, Chief Revenue Officer
PhD student at TU Braunschweig	PhD student at TU Braunschweig
Research Associate - TU BS Institute of Machine Tools and Production Technology	Research Associate & Head of Research Group "Energy Systems" (same institute)
TU Braunschweig, Research associate	Engineering Company, project engineer
	Consultant
Researcher	Consulting Company
PhD student at Siemens Mobility, part of a graduate program	Nextrail GmbH, Member of the executive board
Dürr - Automotive Consultant	IBM Germany - Sales Manager for AI
TU Braunschweig / Research associate	Same
University of Rhode Island; Graduate Teaching and Research Assistant	Clean Water Ventures, South Kingstown, Senior Process Engineer
Postdoctoral Researcher at the National Renewable Energy Laboratory	Same
The Boston Consulting Group/Associate	Sidekick Health , Managing Director/President
Junior Project Manager at Project Mgt. company	Project Manager at same company
Started a startup, COO	Same
TU Braunschweig, research and teaching assistant	Same
Research Assistant	Nordzucker AG, Process Engineer
McKinsey - Fellow Consultant focusing on manufacturing topics	Same
E.ON // Management Consultant	E.ON // Strategy Department
Scientific researcher, Universität Hannover	Same
Marine Geotechnical Engineer at Fugro in Houston	Butting Group in Germany as a Business Unit Director
Executive Assistant	MD
Logistics department of a large European commodity trading firm	Natural Gas Trader
Concordia University, Assistant Professor	Same
Boutique management consulting firm in Switzerland, entry-level consultant	Deutsche Bahn Energie GmbH, Manager IT Processes Energy Sales
TU Braunschweig, PhD student	Siemens Healthineers AG / Acorad Co., Ltd. Representative Director and Managing Director
SimPlan AG, simulation engineer	SimPlan AG, team lead
Mechanical Engineer @ Mercedes-Benz, R&D Electrified Powertrains	Mercedes-AMG GmbH, Team manager Battery Development R&D
Systems Engineer at Moog	Head of Programm Management at Moog
Ramboll as a Engineer for Offshore Wind Structures	Ramboll, Engineer
Strategy Consultant	Managing Director

Lastly, we wanted to know about the respondents' perceptions of their own career trajectory.

Q35 What impact, if any, did the dual master's/MBA program have on your career trajectory? Or, how did it change it?

While some responses recorded "little impact" or "not sure," most reflected a high impact. In their view, the double degree from a US and a foreign institution helped find employment during the 2008-2009 financial crisis: "At the time I was unable to secure employment in the New England area." Others commented on an increased interest in research and academia along with "more openness towards working abroad" and pursued a PhD with their US or German advisors staying on in the foreign country and launching their careers there or landed positions at highly ranked universities - "Worked as PostDoc at ETH Zurich." The one graduate of the dual PhD program also took advantage of having a Doktor in Maschinenbau as well as a PhD in Mechanical Engineering on his resume for his first career move upon completion of both advanced degrees: "It definitely helped me land a job at NASA and considered for jobs that require international collaboration" [from one who finished a dual PhD/Doktor in mechanical Engineering]

A graduate of the TUBS/URI MS/MBA program joined McKinsey Consulting after the MBA which financed his PhD at TU Darmstadt and from there he has held leadership positions in companies' strategy departments before taking on the role of CEO/President of several German companies before currently serving as CEO of a global company in Switzerland: "Would not got into McKinsey w/o it. SO it was the base for all!" Answers also reflect a more global career trajectory which would have been unthinkable without the double degree: "It kick-started my international career with leadership positions at several companies in the United States, Trinidad and Tobago, Switzerland, United Arab Emirates and Germany. Without that start would not have pursued an international career." Similarly, thanks to the skills and degrees acquired in both the US and German university settings, it enabled a seamless switch between both economies: "The dual degree had a big impact on my career. It started with employment for an international construction company based in Germany and was key to immigrating to the US 3 years into my career (now 9.5 years ago). It helped with the PE certification, applying for the MBA track and my work in the US. " It also helped to get into markets which were more developed on one side of the Atlantic than on the other side: "Easier transition into semiconductor industry with a US degree."

The fact that students who choose to be part of such a double degree program often show a mindset that reflects openness, curiosity, risk taking and an entrepreneurial attitude also helped some start their own companies: "I had a lot of freedom at University xxx that I wouldn't have in TU Braunschweig so I could work on something that was useful and important for starting my startup. Now we employ 35 full-time employees."

When asked to weigh whether the overall satisfaction of completing a dual international degree would lead them to hire like-minded applicants - *Q41 Putting yourself into the shoes of*

an employer, why would you choose to hire a recent international dual master's/MBA grad over another candidate?

We recorded lots of “yeses” to this question mixed with occasional “not sure’s” alongside cautionary statements like “depends on individual profile, cannot be generalized” or signifying the degree as just one factor in a decision to hire - “The degree is just the initial pick of candidates. The final choice is much more over the personality, experience overall, fitting to the team from the interview.” But those who gave a rationale for answering “yes” came up with convincing points which suggest that the dual degrees definitely added value as opposed to just finishing just one. First and foremost, employers would recognize that whoever finished a rigorous international double degree program survived a tough selection process in the first place and would see “selection for the program as a quality indicator, showing [the candidate’s] willingness to go beyond standard.” They would also recognize that those applicants must be “more independent and aware of cultural differences.[.as they] put themselves purposely into a very demanding program and did not quit.” Finishing this demanding program also reveals that candidates have “high motivation and willingness to work in unfamiliar settings / language skills.” They are, as one put it, simply “better, broader, smarter.” Employers would appreciate the willingness to put in countless hours of added coursework, experimentation and finally thesis writing. In short, “his/her desire to learn a second language and live abroad to complete a second degree are critical indicators of a high performer who values education, learning, and new experiences, which are highly sought after traits in new employees.” Employers will immediately see the applicant’s “dedication, interest, grit and resilience” as well as a “willingness to extend the personal and professional horizon.” The following quote summarizes the arguments of those who recorded a “yes” answer to Q41 in a succinct way: “Yes, especially if there is a need for international and cross-cultural interaction in the job. I would also see the additional, necessary investment in time to complete the dual program as a positive attribute. It shows willingness to take a not so obvious and difficult route to accomplish a goal with added experience along the way.”

Looking at the graduates’ survey results overall, we learned that there was a high appreciation of the value of the dual master’s in general as can be seen in this graph.

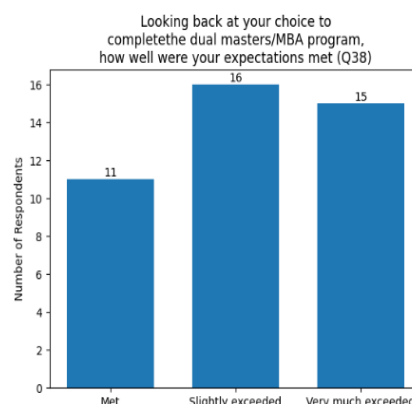


Figure 9 represents answers to Q37: *Looking back at your choice to complete the dual master's/MBA program, how well were your expectations met?*

Challenges

While the older program graduates highlight transparent and feasible dual degree program structure and the availability of sample curricula and credit transfer schemes for both participating schools, a few of the newer ones pointed out a higher level of self-reliance needed to develop their study plans since they were the pioneers figuring out curricular schemes that would work for them. The experimental character of not yet fool-proof curricular and credit transfer schemes was perceived by some of the more recent participants as a challenge while others enjoyed “not being stuck in a German university but enjoying the freedoms of a US one.” As mentioned in the introduction, a rationale for the creation of a dual master’s should be to give students a broader range of options and to experience the uniqueness of each university system and culture. Some answers reflected this approach.

But aside from the transfer credit and occasional challenge regarding their thesis advisor (listed in the quantitative part), participants’ responses did not reveal too many challenges other than that some felt the graduate dual program had “none” or “little impact” on their career with one crediting the five-year dual Bachelor’s undergraduate program higher than the dual master’s: “As with the undergrad program, I would not have had the opportunities to work in the automotive industry in Germany without the experience the program has given me. The graduate program did not necessarily give my career a tangible boost.”

That said, as administrator of the program, we can add several significant challenges beyond the survey responses which are also reflected in previous literature. They emphasize that a smooth and efficient credit transfer was not always possible; one problem has been that course equivalencies/ credit transfer schemes vary from department to department within the same university. This issue requires high coordination between the graduate directors or academic coordinators at both schools and the candidate. This problem reflects the general trend that setting up dual degree programs requires overcoming a variety of bureaucratic hurdles and maintaining them is labor-intensive [8]. An example from URI is that under leadership of a longtime graduate dean the university did not allow more than six credits to be transferred from abroad which meant that the dual masters had to complete 24/30 credits of a normally two-year master’s program in one academic year and finish their thesis in the subsequent summer which is a tall order. Only once the leadership changed could there be a new negotiation of credit transfer and it has now finally become more flexible. Another challenge is the fact that curricula are often not aligned between the two institutions since these are not joint degree programs. It can be a challenge to find exactly the courses abroad still needed to fulfill the home institution’s requirements and to complement credits already taken at home.

Timing is also a challenge: study plans authorized by the home institution had to be made before the Feb. 1st application deadline at University of Rhode Island and then had to be changed again

upon arrival at the US campus because by the Fall the choice of selected courses was no longer available. The already smaller variety of courses at the US institution in comparison to the much broader bandwidth of courses at a technical university in the EU can become even more restricted due to sabbatical leaves of faculty or courses that are only offered every second or third year at this smaller college.

The mobility scheme in the other direction, from the US to the EU presents another set of problems. It is more difficult to recruit graduates from the US who have to overcome, above all, financial hurdles as Grandin pointed out [12]. They need to be ready to invest into an additional and costly year abroad to obtain both degrees than the other way around since both pay widely divergent tuition to their home institutions. Furthermore, taking courses in the target language means an extra degree of difficulty and does not come easily for each candidate even though the majority of the URI graduate participants already majored in the second language and spent a year in the target country where they later would participate in the dual master's programs. This challenge confirms a deeper insight into the nature of acquiring a second language. According to Norton [13] it involves more than becoming proficient in speaking, reading, listening and writing skills; it is a social practice that engages learners' identities in complex and dynamic ways. Changes or challenges to one's identity often go along with this dynamic. Furthermore, the European Higher Education system requires a higher degree of responsibility for their learning and independence from students. If a US dual master student who has to take many courses in the foreign language fails a course or two at the EU partner school, it means they must stay an extra semester, to repeat the course which again means extending a planned one-year program to a year and a half. Coming from a smaller engineering college in the US it can also be overwhelming according to Grandin [14] to choose a thesis advisor at a German technical institution which has over one hundred research institutes. Another substantial challenge concerns the thesis requirement on both sides. While the TUBS/URI program was created in 2006 with the support of an NSF PIRE grant and faculty collaboration on both sides was a given, US dual master's candidates wrote one joint thesis supervised by a joint international committee. Once the grant ran out in 2011, faculty collaboration was no longer as strong, and students ended up having to complete two separate theses. The one written at URI could still satisfy the smaller TUBS' *Studienarbeit* requirement, but they also had to complete a second final thesis abroad.

Finally, asked Q42 *What suggestions might you have for dual master's/MBA students as they exit the program?*, graduates' advice ranged from making the most of the additional skills acquired on resumes and LinkedIn pages such as multi-lingualism, international experience and leveraging the built international alumni network of high achievers while keeping to challenge themselves and being selective in the choice of their future employers:

“Choose an employer who values your international education foundation and where you can add value with such a foundation, i.e. look for an employment opportunity with a company with an international footprint, client base or supply chain where your international profile will be of great value!”

Conclusion

Addressing a gap in research about the impact of international dual graduate engineering programs, this paper demonstrated compelling results of survey responses from the IEP's Fall 2024 Qualtrics survey on the University of Rhode Island's dual master/MBA programs. We could show that with regards RQ 1: *Do the University of Rhode Island international dual master programs add value for participating students?*, participants clearly registered a significant positive impact on their lives and careers. In summary, the motivation to join and the added value perceived in the dual MS/MBA program overall was the combination of international experience with dual degrees, supported by language development, career advancement, and personal/intercultural growth. We also could show that graduates of the international graduate degree programs were highly employable. About two-thirds of the graduates advanced in their careers at a fast pace. Answers also reflected a more global career trajectory which would have been unthinkable without the double degree.

With respect to RQ 2: *What are the program's benefits and challenges*, overall respondents valued the benefits of being able to combine a second, foreign degree from their home and abroad institutions, with language and cultural immersion, their personal and professional development, and a different, more applied academic approach. Most respondents also perceived a high impact of completing a dual versus a single degree on their career trajectory and life.

Challenges mentioned by respondents included occasional hick-ups with the credit transfer scheme, lack of coordination between home and abroad thesis advisor and the need for a high level of self-reliance to develop their study plans, especially in the earlier years of the program since they were the pioneers figuring out curricular schemes that would work for them.

On the institutional level, the set-up not only allows for the attainment of postgraduate engineering degree programs across borders, but it also provides students with the opportunity to pursue specialized areas of study that are not yet offered at URI. Thus, these programs could be framed as a strategic platform for students to enhance their technical knowledge and deepen their interaction with sector-specific innovations.

Discussion

While the analysis above demonstrates the unique added value, benefits and challenges for both students and institutions involved in the dual master program, the graduate mobility scheme which TUBS/URI already started in 1997 as the 1st German-US dual master program, could not have become bi-directional had it not been for initial NSF PIRE grant which allowed University of Rhode Island to send its first funded cohort to TUBS in 2006. In selecting our oldest partner for the joint grant, we anticipated what a decade later the Council of Graduate Schools advised in its 2013 report: "The consensus of most graduate deans is that the best programs are those established with partner institutions that have existing relationships with the U.S. university or

are familiar through long-term research collaborations among a group of faculty” as Carlin pointed out [15]. URI’s experience with its dual degree programs confirms this conclusion: all of the above-mentioned challenges could only effectively have been addressed once mutual respect and trust had been developed between our partnering schools, faculty and administrators.

Thus, it required sustained leadership and effort on the part of its faculty champions to put the planned program on secure financial footing. Keeping up the thirty-year collaboration between University of Rhode Island’s longest partner school TUBS and the ten-year collaboration with TUDa required vigilance and constant joint educational and scholarly activities as well as new funding sources to support students and faculty from both sides in a sustainable way. Only because these exchanges had the highest priority for the presidents and administration of both schools, subsequent funding schemes could be generated on both sides in more recent years.

From 2018-2021 the \$30,000 matching funds from both the US and German institutions were instituted and allowed for continued faculty collaboration and travel in both directions; they are being renewed for a period of three years starting in 2026. Additionally, the US to Germany mobility is supported by the New York based Max Kade Foundation while the Germany to US mobility has been supported by ERASMUS and Key Action 171 funds of 100,000 euros (2022-2025 and 2024-2027) as well as DAAD IAS/ISAP funds with a total of \$2 Million between 1997-2025. On both sides, selected candidates have benefitted from individual scholarships of the German Academic Exchange Service (DAAD) as well as the Fulbright grant program.

The newest dual graduate program, with the Université de Technologie de Compiègne (UTC) in France, has also gotten off to a promising start by investing funding from both sides to exchange doctoral candidates who are writing joint theses. The French joint PhD funding (*cotutelle*) involves co-financing from UTC and URI, and covers living stipends, travel, and research costs for US candidates who spend time in France, and on the American side by research funds from the College of Engineering.

A broader issue is the cost-benefit analysis of such programs: if it is set up in the usual model of a bilateral exchange where students pay tuition to their home institution, the US side can perceive it as a “losing” proposition since incoming international students benefit greatly from being able to take tuition-free slots in comparison to a direct-enroll model where international students pay the US institution’s high international (out-of-state) tuition fees. Only if the leadership values the significant educational benefits more than the revenue generated, can dual master’s programs continue to thrive.

Limitations and Future Research

But this detailed analysis of ONE university’s portfolio of international dual MS/MS/MBA programs is only a good start. If one really wanted to make the case that completing a dual MS/MS/MBA program has significant career advantages, we would have to send a similar

survey out to a control group of graduates finishing only one MS in one country. What we also recommend is a longitudinal analysis of data with a higher number of participants coming from a broader variety of participating institutions, in the case of University of Rhode Island, not just from its longstanding Germany-US cooperations but gradually more from its newest graduate dual degree programs in Spain, Italy and France. In addition, future analysis could analyze survey questions that we did not look at in detail, such as salary information and the different impacts of joint versus double degrees. Collaborative comparative research could also be undertaken with peer institutions who developed similar graduate programs. Given the significant turbulence in today's political landscape and resulting government funding cuts, further research could examine ongoing strategies to keep international graduate mobility alive!

Despite these limitations, we hope that this paper can provide international engineering educators with insights into the added value, benefits and challenges of managing engineering graduate engineering dual master's / MBA programs in order to inform future initiatives to strengthen US-European ties at a moment of increased uncertainty in transatlantic relations.

References

- [1] P.M. Mc Pherson et al, "Commission on the Abraham Lincoln Study Abroad Fellowship Program," Washington, D.C, Nov. 2005, pp. 3-34. [Online] Available: https://www.nafsa.org/sites/default/files/ektron/uploadedFiles/NAFSA_Home/Resource_Library_Assets/CCB/lincoln_commission_report%281%29.pdf [Accessed: Jan. 3, 2026]
- [2] A. Bhatia, and A. Fan. "Nearly 20 Percent Fewer International Students Traveled to the U.S. in August," *New York Times: The Upshot*. [Online], June 10, 2025. Available: <https://www.nytimes.com/interactive/2025/10/06/upshot/us-international-student-travel.html> . [Accessed Jan. 10, 2026].
- [3] T. Wright, *Mapping and Evaluating U.S. - German Exchange Programs, 2020-2025*. Heinrich Böll Foundation: Washington, DC 2026. [Online] Available <https://us.boell.org/en/2025/12/03/mapping-and-evaluating-us-german-exchange-programs-2020-2025> [Accessed Jan. 16, 2026]
- [4] S. Michael and L. Balraj, "Higher education collaboration: An analysis of models of joint degree programmes," *Journal of Higher Policy and Management*, vol. 25(2) pp. 131-145, 2003.
- [5] M. Kuder and D. Obst, "Joint and double degree programs in the transatlantic context – A survey report," *Institute of International Education*," pp. 1-43, 2009. [Online]. Available: <https://www.iie.org/wp-content/uploads/2022/12/Joint-Degree-Survey-Report-2009.pdf> [Accessed Jan. 11, 2026].
- [6] R. Y. Chan, "Understanding International Joint and Dual Degree Programs: Opportunities and Challenges during and after the COVID-19 Pandemic," *Journal of Comparative &*

International Higher Education. 13(5), pp. 86-107, 2021. [ONLINE] DOI: [10.32674/jcihe.v13i5.3690](https://doi.org/10.32674/jcihe.v13i5.3690) | <https://ojed.org/> [Accessed Jan. 4, 2026].

[7] S.M. Culver, I. K. Puri, G. Spinelli, K. P. K. DePauw and J. E. Dooley, “Collaborative dual degree programs and value added for students: lessons learned through the evaluate-e Project,” *Journal of Studies in International Education*. 16(1), pp. 40-61, 2012.

[8] N. Asgary and M. A. Robbert (2010), A cost-benefit analysis of an international dual degree programme,” *Journal of Higher Education Policy and Management*. Vol. 32(3), pp. 317-315. [Online]. Available: <https://doi.org/10.1080/13600801003743513> [Accessed Jan. 8, 2026].

[9] S. Berka, S. “The University of Rhode Island Dual Graduate Degree Program with the Technical University of Braunschweig – Its Added Value, Synergies and Gains for Engineering Students,” *Online Journal for Global Engineering Education (OJGEE)*, vol. 6 (1) article 5, pp. 1-12, 2011. [Online] Available: <http://digitalcommons.uri.edu/ojgee/vol6/iss1/>. [Accessed Jan. 5, 2026].

[10] A. Martinez, Epstein, Carter and A. Parsad,”Evaluation of the National Science Foundation’s Partnership for International Research and Education (PIRE) Program,” vol. 1, 2015: Final Report. Abt Associates, Bethesda, MD. [Online] Available: <https://eric.ed.gov/?q=postdoctoral&ffl=souAbt+Associates&id=ED563795> [Accessed Aug. 5, 2025]

[11] B. Mu, S. Berka, L. Erickson, I. Pérez-Ibáñez, “ Individual experiences that affect students’ development of intercultural competence in study abroad.” *International Journal of Intercultural Relations*. Vol. 89, pp. 30-41, 2022.

[12] J. M. Grandin, "International Dual Degrees at the Graduate Levels: The University of Rhode Island and the Technische Universität Braunschweig," *Online Journal for Global Engineering Education*: Vol. 3: Iss. 1, Article 2, pp. 1-8, 2008. [Online] Available at: <https://digitalcommons.uri.edu/ojgee/vol3/iss1/2> [Accessed July 30, 2025].

[13] B. Norton, *Identity and Language Learning: Extending the Conversation*. 2nd Edition. Bristol: Multilingual Matters, 2013.

[14] J.M. Grandin, *Going the Extra Mile: U. of xx Engineers in the Global Workplace*. Wakefield, R.I.: Rockland Press, 2011.

[15] D. Carlin, “Engaging globally through joint and dual degrees: the graduate experience,” *GlobalHigherEd* [Online], Feb., 23, 2008. Available: <https://globalhighered.wordpress.com/2008/02/23/engaging-globally-through-joint-and-dual-degrees-the-graduate-experience/> [Accessed Jan. 10, 2026].

Appendix 1

URI Int'l Dual Master's/MBA Alumni Survey

Survey Flow

Standard: Intro & Personal Info (8 Questions)

Standard: Dual Master's/MBA Program Information & Experiences (19 Questions)

Standard: Following Completion of the Dual Master's/MBA Program (10 Questions)

Standard: Additional Feedback & Opportunities (8 Questions)

Thank you for your interest and for taking the time to fill out this URI-International Dual Master's/MBA Alumni Survey! Your responses will help us gauge the longer-term outcomes and impacts these dual master's programs have had on participants' lives professionally, academically and personally. This survey should take approximately 15-20 minutes to complete. Alumni who complete this survey will be entered into a raffle for a URI sweatshirt!

Q1 Gender

- Male (1)
- Female (2)
- Non-binary / third gender (3)
- Prefer not to say (4)

Q2 Ethnicity

- Hispanic/Latino (1)
- Non-Hispanic/Latino (2)
- I do not wish to provide this information (3) Q3 How do you identify yourself?
- American Indian or Alaska Native (1)
- Asian (2)
- Black or African American (3)
- Native Hawaiian or Other Pacific Islander (4)
- White (5)
- 2 or more of the above (6)
- None of the above (7)
- I do not wish to provide this information (8)

Q4 In what year did you complete your bachelor's level studies and/or Diplom, before beginning the dual master's/MBA program at URI/in Europe?

Q5 What did you major/specialize in?

- Biomedical engineering (1)
- Chemical engineering (2)
- Civil & environmental engineering (3)
- Computer engineering (4)
- Electrical engineering (5)
- Industrial & systems engineering (6)
- Mechanical engineering (7)
- Ocean engineering (8)
- Business or a related field (9)
- Computer science (10)
- Other (11) _____

Q6 If there was a time gap in between you completing your bachelor's studies/Diplom and beginning a master's program, what did you do during that time? If you worked during that time or completed a trainee program, mention the company name, location and role.

Start of Block: Dual Master's/MBA Program Information & Experiences

Q7 Which of URI's partner institutions were you attending while completing this international dual master's/MBA program?

- TU Braunschweig (TUBS) (1)
 - TU Darmstadt (TUDa) (2)
 - University of Naples Parthenope (UNP) (3)
 - University of Cantabria (UNICAN) (4)
 - Université de Technologie de Compiègne (UTC) (5)
 - Other University (Dual Master) (7) _____
 - Zhejiang University (ZJU) BS/MS Program (8)
-

Q8 In what year did you complete the dual master's/MBA program?

Q9 In which field did you obtain your graduate degree at URI?

- Chemical engineering (2)
- Civil & environmental engineering (3)
- Electrical engineering (5)
- Mechanical engineering (7)
- Ocean engineering (8)
- Systems engineering (6)
- MBA (9)
- Other (11) _____

Q10 In what field did you obtain your graduate degree at URI's partner university?

Q11 What was your research area/topic at URI?

Q12 What department did you work with at your home university/university abroad?

Q13 What was your motivation to participate in this international dual master's/MBA program?

Q14 Which best describes your student status while completing this program?

- Part-time student (1)
- Full-time student (2)
- Both (3)

Q15 Was this dual master's/MBA program financially supported, including the international portion of the program?

- No (1)
- Minimally (2)
- Somewhat (3)
- Substantially (4)
- In full (5)
- N/A (6)

Q16 From which organizations/entities did you receive funding?

- DAAD/DAAD ISAP (1)
- ERASMUS (2)
- Fulbright (3)
- Max Kade (3)
- Other (4) _____

Q17 Where did you live during the URI portion of this program?

- At the IEP LLC (1)
- Off-campus in Southern RI (2)
- Off-campus in Providence (3)
- Other (4) _____

Q18 How much would you say that your living situation during this program helped you feel connected to the URI community?

- Not at all (1)
- A little (2)
- Somewhat (3)
- Very much (4)
- Extremely helpful (5)

Q19 What was your experience transferring credits between the two partner universities to complete this dual master's/MBA program?

- Very complicated (2)
- Somewhat complicated (3)
- Ok (5)
- Somewhat easy (7)
- Very easy (8)

Q20 How satisfied were you with your advisors...?

	Not satisfied (1)	A little satisfied (2)	Somewhat satisfied (3)	Very satisfied (4)	Extremely satisfied (5)
At URI (2)	•	•	•	•	•
At your home university/partner university (3)	•	•	•	•	•

Q21 Did you write 1 thesis jointly or 2 separate master theses (one at URI/one at partner university)

- One jointly (1)
- Two separately (2)
- Other (3) _____

Q22 If you wrote a joint thesis, how would you describe the level of coordination of research activities between universities?

	None (1)	Little (5)	Some (6)	A lot (7)	N/A (8)
Cooperation between professors at the two separate universities (1)	•	•	•	•	•
Collaboration on a joint research project between the two universities (2)	•	•	•	•	•
Cooperation for jointly published work (6)	•	•	•	•	•

Q23 Was your research for this program completed at a university lab/institute or was it completed at a company?

- University lab or institute (1)
- Company (2)
- Other (3) _____

Q24 One of the original goals in starting the dual master's/MBA degree program was to benefit from the complementary strengths of teaching/research at the various partner universities, e.g. classes or research fields not available at home. How much do you feel that this joint degree path added value to your education in this way?

- No value added (1)
- Minimally valuable (2)
- Some value added (3)
- Significant value added (4)
- Extremely valuable (5)

Q25 How much did your second language and intercultural skills improve through the abroad part of the dual master's/MBA experience?

- Not much (1)
- Improved a little (2)
- Somewhat improved (3)
- Improved a lot (5)
- Substantially improved (6)

Q26. What challenges if any did you encounter related to the completion of your double degrees? If none, please put N/A.

Start of Block: Following Completion of the Dual Master's/MBA Program

Q27 After graduating from the dual master's/MBA, did you earn another advanced degree or are you currently pursuing one?

- Yes (1)
- No (2)

Q28 What other advanced degrees are you pursuing/did you earn?

- MS (2)
- MBA (3)
- PhD (4)
- Other (6) _____

Q29 From which institution(s) and in which field(s)?

Q30 I started working on my additional degree(s)...

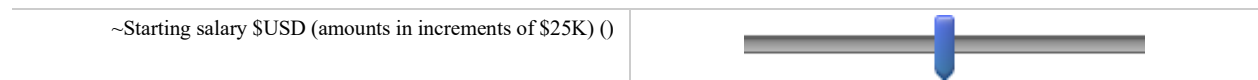
- Immediately after completion of my dual master's/MBA program (1)
- Within 5 years of completion of my dual master's/MBA program (2)
- Within 6-10 years of completion of my dual master's/MBA program (3)
- More than 10 years after completion of my dual master's/MBA program (4)

Q31 What was your first place of employment following your completion of the dual master's program/MBA and what was your role? _____

Q32 Please indicate your approximate starting salary.

Not Applicable

25 50 75 100 125 150 175 200



Q33 Where are you currently employed and what is your role? If exactly same as above, write "same".

Q34 Please indicate your approximate current salary.

Not Applicable

50 95 140 185 230 275 320 365 410 455 500



Q35 What impact, if any, did the dual master's/MBA program have on your career trajectory? Or, how did it change it? Eg. Graduate alumni work for companies in their home country, found employment at global companies throughout the world, started their own companies, are CEOs of companies, work for consulting firms, etc.

Q36 What was the most significant impact of the dual master's/MBA program on you as a whole (life, academics, career)? Please be specific.

Start of Block: Additional Feedback & Opportunities

Q37 Looking back at your choice to complete the dual master's/MBA program, how well were your expectations met?

- Not met (1)
- Not quite met (2)
- Met (3)
- Slightly exceeded (4)
- Very much exceeded (6)

Q38 Would you recommend an international dual master's/MBA program to engineering students from your home university?

- Yes (1)
- Maybe (2)
- No (3)

Q39 Would you recommend that other dual master's/MBA students live in the same location you did? Why or why not?

Q40 What do you see as the biggest benefit that the dual master's/MBA program offers students vs. a regular master's/master's equivalent program at your home university?

Q41 Putting yourself into the shoes of an employer, why would you choose to hire a recent international dual master's/MBA grad over another candidate?

Q42 What suggestions might you have for dual master's/MBA students as they exit the program? Eg: in regard to marketing the skills they acquired abroad/as a part of the program or leveraging their IEP experiences to advance their career or shift their career focus?

Q43 Alumni of these dual master's/MBA are crucial to the success of URI's international partnerships. Please indicate below in the different ways you might be interested in continuing to be a part of/contribute to the URI community.

- Sponsoring an IEP/IBP/ICSP internship at your company (1)
- Helping with recruitment efforts (2)
- Guest speaker opportunities (eg: offering a workshop, participating in a panel at a conference) (3)
- Helping to organize community engagement events with URI/international students (4)
- Offering financial support for students in need (eg: starting an endowment or contributing to an existing scholarship fund) (5)
- Serving on the IEP Advisory Council (invite only) (6)
- Connect with the IEP on LinkedIn (7)
- Please add me to a URI-international dual master's/MBA alumni mailing list (provide email below) (8)
- Other (9) _____

Q44 Use this space to provide any additional feedback or context you'd like related to the questions above.

OPTIONAL: If you would like to be entered in a raffle for an IEP sweatshirt, please click this [LINK](#) to provide a name and an email address where we can reach you. You will be removed from the survey, and your information will not be linked to your responses. The link will take you out of the survey and bring you to a new, separate page to put in your information.